Presented to the Court by the foreman of the 1 Judge Robert S. Lasnik Grand Jury in open Court, in the presence of the Grand Jury and FILED in the U.S. DISTRICT COURT at Seattle, Washington 2 January 12, 2022 RAVI SUBRAMANIAN, Clerk 3 Strui Kattur \_ Deputy 4 5 6 7 UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WASHINGTON 8 AT SEATTLE 9 10 UNITED STATES OF AMERICA, NO. CR19-159 RSL 11 Plaintiff SECOND SUPERSEDING 12 **INDICTMENT** 13 PAIGE A. THOMPSON, 14 Defendant. 15 The Grand Jury charges that: 16 COUNT 1 17 (Wire Fraud) 18 1. Beginning in or before March 2019, and continuing until on or about July 19 17, 2019, at Seattle, within the Western District of Washington, and elsewhere, PAIGE 20 A. THOMPSON, with the intent to defraud, devised and intended to devise, a scheme and 21 artifice to defraud and to obtain money and property by means of materially false and 22 fraudulent pretenses, representations, and promises. 23 Background 24 2. The "Cloud Computing Company" is a company that provides cloud-25 computing services to individuals, companies, and governments. Cloud computing is the 26 practice of using a network of remote servers hosted on the Internet, commonly referred to as "the cloud," rather than a local computer or server, to store, manage, and process

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data. The Cloud Computing Company provides services through server farms that are located throughout the world and maintained by the Cloud Computing Company.

- 3. Capital One Financial Corporation ("Capital One") is a bank holding company that offers credit cards and other services to customers throughout the United States. Capital One supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company. The servers on which Capital One stores credit card application and other information generally are located in states other than the State of Washington, and they store information regarding customers, and support services, in multiple states. Deposits of Capital One are insured by the Federal Deposit Insurance Corporation.
- 4. Victim 2 is a state agency of a state that is not the State of Washington. Victim 2 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.
- 5. Victim 3 is a telecommunications conglomerate located outside the United States that provides services predominantly to customers in Europe, Asia, Africa, and Oceania. Victim 3 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.
- 6. Victim 4 is a public research university located outside the State of Washington. Victim 4 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.
- 7. Victim 5 is a technology company that specializes in digital rights management. Victim 5 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.
- 8. Victim 6 is a technology company that provides data and threat protection services. Victim 6 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.
- 9. Victim 7 is a technology company that provides interaction-management solutions for customer interactions in call centers and other environments. Victim 7

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supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company.

- 10. Victim 8 is a technology company that provides higher education learning technology to educational institutions and other clients. Victim 8 supports its services, in part, by renting or contracting for computer servers from the Cloud Computing Company
- B. The Essence of the Scheme and Artifice
- 11. The object of the scheme was to exploit the fact that certain customers of the Cloud Computing Company had misconfigured web application firewalls on the servers that they rented or contracted from the Cloud Computing Company. The object was to use that misconfiguration to obtain credentials for accounts and roles of those customers that had permission to view and copy data stored by the customers on Cloud Computing Company servers, as well as permission to perform other functions. The object then was to use the stolen credentials to access and copy other data stored by the customers on Cloud Computing Company servers, including data containing valuable personal identifying information. The object was also to use the stolen credentials in other ways for PAIGE A. THOMPSON's own benefit, including by using Cloud Computing Company servers to mine cryptocurrency and thereby obtain something of value.
- C. The Manner and Means of the Scheme and Artifice
- 12. It was part of the scheme and artifice that PAIGE A. THOMPSON used, and created, scanners that allowed her to scan the public-facing portion of servers rented or contracted by customers from the Cloud Computing Company, and to identify servers for which web application firewall misconfigurations permitted commands sent from outside the servers to reach and be executed by the servers.
- 13. It was further part of the scheme and artifice that PAIGE A. THOMPSON transmitted commands to the misconfigured servers that obtained the security credentials for particular accounts and roles belonging to the customers with the misconfigured servers.

- 14. It was further part of the scheme and artifice that PAIGE A. THOMPSON used the accounts and roles for which she had obtained security credentials to obtain lists or directories of folders, or buckets, of data in the Cloud Computing Company customers' storage space at the Cloud Computing Company.
- 15. It was further part of the scheme and artifice that PAIGE A. THOMPSON used the accounts and roles for which she had obtained security credentials to copy data, from folders or buckets of data in the Cloud Computing Company customers' storage space at the Cloud Computing Company for which the accounts and roles had requisite permissions, to a server that PAIGE A. THOMPSON maintained at her own residence.
- 16. It was further part of the scheme and artifice that, in taking these steps, PAIGE A. THOMPSON implicitly represented that commands to copy data that she sent using the accounts and roles for which she had obtained security credentials were legitimate commands sent by users with permission to send such commands, rather than commands sent by a person who had stolen the security credentials and who lacked authority to use the accounts and roles and send the commands.
- 17. It was further part of the scheme and artifice that, in executing the scheme and artifice, PAIGE A. THOMPSON used virtual private networks ("VPNs"), including a VPN offered by the company IPredator, to conceal PAIGE A. THOMPSON's location and identity from the Cloud Computing Company and from victim companies.
- 18. It was further part of the scheme and artifice that, in executing the scheme and artifice, PAIGE A. THOMPSON used The Onion Router ("TOR") to conceal PAIGE A. THOMPSON's location and identity from the Cloud Computing Company and from victim companies.
- 19. It was further part of the scheme and artifice that PAIGE A. THOMPSON copied data to her own server from servers rented or contracted by Capital One from the Cloud Computing Company, including data that contained information, including personal identifying information, from approximately 100,000,000 customers who had applied for credit cards from Capital One.

- 20. It was further part of the scheme and artifice that PAIGE A. THOMPSON copied and stole data from more than 30 different entities, including Capital One, Victim 2, Victim 3, Victim 4, Victim 5, Victim 6, Victim 7, and Victim 8 that had contracted or rented servers from the Cloud Computing Company.
- 21. It was further part of the scheme and artifice that PAIGE A. THOMPSON used accounts and roles for which she had obtained security credentials to place programs on certain victims' servers to "mine" cryptocurrency for her own benefit using stolen computing power, a practice often referred to as "cryptojacking." (Cryptocurrency mining is the process by which cryptocurrency transactions are verified and added to the public ledger, *i.e.*, the blockchain. Persons who verify blocks of legitimate transactions, often referred to as "miners," are rewarded with an amount of that cryptocurrency. Successful mining operations consume large amounts of computing power and hardware.) PAIGE A. THOMPSON also used the accounts and roles for which she had obtained security credentials to delete the code, logs, and other records of the cryptocurrency mining software and activity.
- 22. It was further part of the scheme and artifice that, in placing cryptocurrency mining software on victim servers, and deleting the code, logs, and other records from those servers, PAIGE A. THOMPSON implicitly represented that commands that she issued using the accounts and roles for which she had obtained security credentials were legitimate commands sent by users with permission to send such commands, rather than commands sent by a person who had stolen the security credentials and who lacked authority to use the accounts and roles and send the commands.

#### C. Execution

23. On or about March 22, 2019, at Seattle, in the Western District of Washington, and elsewhere, PAIGE A. THOMPSON, for the purpose of executing the scheme and artifice described above, caused to be transmitted by means of wire communication in interstate commerce, from her computer in Seattle to a computer outside the State of Washington, writings, signs, signals, pictures, and sounds, that is, a

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command to copy data belonging to Capital One from servers, rented and contracted by Capital One from the Cloud Computing Company, to a server belonging to PAIGE A. THOMPSON in Seattle.

All in violation of Title 18, United States Code, Section 1343.

## **COUNT 2** (Computer Fraud and Abuse)

- 24. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into this Count, as if fully set forth herein.
- 25. Between on or about March 12, 2019, and on or about July 17, 2019, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON intentionally accessed a computer without authorization, to wit, a computer containing information belonging to Capital One Financial Corporation, and thereby obtained information contained in a financial record of a financial institution and of a card issuer as defined in Section 1602 of Title 15, and information from a protected computer, and the value of the information obtained exceeded \$5,000.

All in violation of Title 18, United States Code, Section 1030(a)(2)(A) and (C), and (c)(2)(A) and (B)(iii).

## **COUNTS 3 -5** (Computer Fraud and Abuse)

- 26. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into these Counts, as if fully set forth herein.
- 27. On or about the dates below, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON intentionally accessed a computer without authorization, to wit, computers containing information belonging to the entities identified below, and thereby obtained information from a protected computer, and the value of the information obtained exceeded \$5,000.

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Count	<u>Date</u>	Entity
3	April 5, 2019	Victim 3
4	March 7, 2019	Victim 5
5	March 12, 2019	Victim 7

All in violation of Title 18, United States Code, Section 1030(a)(2)(C), and (c)(2)(A) and (B)(iii).

### **COUNTS 6-7** (Computer Fraud and Abuse)

- 28. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into these Counts, as if fully set forth herein.
- 29. On or about the dates below, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON intentionally accessed a computer without authorization, to wit, computers containing information belonging to the entities identified below, and thereby obtained information from a protected computer.

Count	<u>Date</u>	Entity
6	March 5, 2019	Victim 6
7	March 28, 2019	Victim 8

All in violation of Title 18, United States Code, Section 1030(a)(2)(C), and (c)(2)(A).

## COUNT 8 (Computer Fraud and Abuse)

30. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into this Count, as if fully set forth herein.

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31. Beginning on or before March 10, 2019, and continuing until on or after August 5, 2019, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON, knowingly caused the transmission of a program, information, code, and command, that is a program, code, and commands designed to perform cryptocurrency mining and to delete the code, logs, and other records of the cryptocurrency mining software and activity and, as a result of such conduct, intentionally caused damage without authorization to protected computers rented and contracted by Victim 7, Victim 8, and other victims, from the Cloud Computing Company, and the offense caused loss to one or more persons, that is, Victim 7, Victim 8, other victims, and the Cloud Computing Company, during a one-year period, including loss from a related course of conduct, aggregating at least \$5,000 in value.

All in violation of Title 18, U.S.C. Section 1030(a)(5)(A) and (c)(4)(B)(i).

## COUNT 9 (Access Device Fraud)

- 32. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into this Count, as if fully set forth herein.
- 33. Beginning on or about March 12, 2019, and continuing until on or about July 17, 2019, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON, knowingly and with intent to defraud, possessed and attempted to possess counterfeit and unauthorized access devices, said possession affecting interstate and foreign commerce, in that PAIGE A. THOMPSON possessed and attempted to use personal identifying information (PII), including more than 15 Social Security Numbers and more than 15 bank account numbers, stolen during the conduct described in Count 1, to create counterfeit and unauthorized credit and debit cards to be used to conduct transactions in interstate and foreign commerce.

All in violation of Title 18, United States Code, Section 1029(a)(3), (b)(1) and (c)(1)(a)(i).

### COUNT 10 (Aggravated Identity Theft)

- 34. The allegations set forth in Paragraphs 1-23 of this Second Superseding Indictment are realleged and incorporated into this Count, as if fully set forth herein.
- 35. Beginning on or about March 12, 2019, and continuing until on or about July 17, 2019, at Seattle, within the Western District of Washington, and elsewhere, PAIGE A. THOMPSON, knowingly possessed, without lawful authority, a means of identification of another person during and in relation to a felony violation enumerated in 18 U.S.C. § 1028A(c), to wit Wire Fraud, including as charged in Count 1, and Access Device Fraud, as charged in Count 9, knowing that the means of identification belonged to another actual person, to wit, the names and other personal identifying information (PII) of millions of people, including J.B., stolen during the conduct described in Count 1.

All in violation of Title 18, United States Code, Section 1028A(a)(1).

# ASSET FORFEITURE ALLEGATION (COUNT 1)

The allegations contained in Count 1 of this Second Superseding Indictment are hereby realleged and incorporated by reference for the purpose of alleging forfeiture pursuant to Title 18, United States Code, Section 981(a)(1)(C), by way of Title 28, United States Code, Section 2461(c). Upon conviction of the offense charged in Count 1, the defendant, PAIGE A. THOMPSON, shall forfeit to the United States any property, real or personal, which constitutes or is derived from proceeds traceable to such offense, including but not limited to a sum of money representing the proceeds the defendant obtained from the offense.

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### **(COUNTS 2-8)**

The allegations contained in Counts 2 through 8 of this Second Superseding Indictment are hereby realleged and incorporated by reference for the purpose of alleging forfeiture pursuant to Title 18, United States Code, Sections 982(a)(2)(B) and 1030(i). Upon conviction of an offense charged in Counts 2 through 8, the defendant, PAIGE A. THOMPSON, shall forfeit to the United States any property constituting, or derived from, proceeds the defendant obtained, directly or indirectly, as the result of such offense, and shall also forfeit the defendant's interest in any personal property that was used or intended to be used to commit or to facilitate the commission of such offense, including but not limited to a sum of money representing the proceeds the defendant obtained from the offense.

### (COUNT 9)

The allegations contained in Count 9 of this Second Superseding Indictment are hereby realleged and incorporated by reference for the purpose of alleging forfeiture pursuant to Title 18, United States Code, Sections 982(a)(2)(B) and 1029(c)(1)(C). Upon conviction of the offense charged in Count 9, the defendant, PAIGE A. THOMPSON, shall forfeit to the United States any property constituting, or derived from, proceeds the defendant obtained, directly or indirectly, as the result of such offense, and shall also forfeit the defendant's interest in any personal property that was used or intended to be used to commit or to facilitate the commission of such offense, including but not limited to a judgment for a sum of money representing the proceeds the defendant obtained from the offense.

### (Substitute Assets)

If any of the above-described forfeitable property, as a result of any act or omission of the defendant,

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;

1	c. has been placed beyond the jurisdiction	of the Court:	
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	d. has been substantially diminished in value; or		
3	e. has been commingled with other property which cannot be divided without		
4	difficulty;		
5	it is the intent of the United States to seek the forfeiture of any other property of the		
6	defendant, up to the value of the above-described forfeitable property, pursuant to Title		
7	21, United States Code, Section 853(p).		
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9	A	TRUE BILL:	
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189	United States Attorney		
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25	JESSICA M. MANGA Assistant United States Attorney		
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